

Serial Nr.: 10/633,029
Art Unit: 2818

03180-URS

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A light emitting diode (LED) comprising:
 - a buffer layer made of a GaN-based compound semiconductor, being grown on a substrate;
 - an LED structural layer formed on the buffer layer, the LED structural layer further comprising an n-type GaN layer, a multiple-quantum-well structural layer, a p-type GaAlN layer, and a p-type GaN layer, in which the n-type GaN layer is made of a GaN-based compound semiconductor and formed on the buffer layer, the multiple-quantum-well structural layer being made of an InGaN serial compound and situated on the n-type GaN layer, the p-type GaAlN layer being made of a p-type GaAlN-based compound semiconductor and grown on the multiple-quantum-well structural layer, the p-type GaN layer being made of a p-type GaN-based III-V compound semiconductor and grown on the p-type GaAlN layer;
 - a p-type quantum-dot epitaxial layer made of ~~[[a]]~~ an InAlN compound, being grown on the p-type GaN layer of the LED structural layer, and part of the n-type GaN layer, the multiple-quantum-well structural layer, the p-type GaAlN layer, the p-type GaN layer, and the p-type quantum-dot epitaxial layer being removed by a single etching process;
 - a p-type ohmic contact electrode made of Ni/AuBe material being formed on the p-type quantum-dot epitaxial layer and electrically connected therewith; and
 - an n-type ohmic contact electrode being grown on the n-type GaN layer of the LED structural layer and electrically connected therewith;whereby a forward bias can be applied to the LED.

2-6. (Cancelled).